

IN THE CLAIMS:

Please amend Claims as follows:

1 (Previously Amended). A device for accurately generating a plurality of samples representing data encoded according to a digital subscriber line (DSL) specification, said data being encoded in a DSL signal and being received on a telephone line, said telephone line being shared by other devices used for home networking, said device comprising:

a filter coupled to said telephone line, said filter receiving an input signal on said telephone line and attenuating signal components corresponding to said home networking to generate a filtered output;

a first amplifier amplifying said filtered output to generate an amplified signal; and

an analog to digital converter (ADC) sampling said amplified signal to generate said plurality of samples; wherein said filter comprises a high pass filter including a first resistor in series with an input capacitance, wherein said first resistor has a resistance substantially more than the internal resistance of said input capacitance.

2 (Previously Amended). The device of claim 1, wherein said filter further comprises:

a second amplifier amplifying the output of said high pass filter; and

a low pass filter filtering attenuating the signal components corresponding to said home networking to a level less than a desired noise floor in an environment based on said DSL, wherein said high pass filter filtering any DSL transmission echoes received on said telephone line, said high pass filter further filtering any voice communications also received on said telephone line.

3 (Original). The device of claim 2, wherein said high pass filter further attenuates high frequency components including said signal components corresponding to said home networking, wherein the attenuations of said high frequency components enables said second amplifier to be implemented with a higher gain.

4 (Original). The device of claim 3, wherein said DSL comprises Asymmetric DSL (ADSL), and said home networking is performed according to home phone networking alliance (HPNA) standard, wherein said desired noise floor equals -150 dBm/Hz.

5 (Previously Amended). The device of claim 3, wherein said first resistor causes said attenuations of said high frequency components.

6 (Original). The device of claim 5, further comprising a second resistor in series with another stage contained in said high pass filter.

7 (Original). The device of claim 3, further comprising an equalizer disposed between said high pass filter and said low pass filter, said equalizer compensating for the different attenuations to which different frequency signal components of said ADSL signal are subjected to when transmitted on a local loop.

8 (Original). The device of claim 1, wherein said filter is implemented as an analog filter.

9 (Original). The device of claim 8, wherein said analog filter is implemented using active components.

10 (Original). The device of claim 8, wherein said analog filter is implemented using passive components.

11 (Original). The invention of claim 1, wherein said device comprises a modem or a customer premises equipment (CPE).

12 (Original). The device of claim 2, wherein said filter is implemented as a monolithic integrated circuit.

13 (Previously Amended). A filter for processing a signal received on a telephone line, said telephone line being shared by a customer premise equipment (CPE) operating according to

a digital subscriber line (DSL) standard, said telephone line being shared by other devices used for home networking, said filter comprising:

a high pass filter filtering any DSL transmission echo[[e]]s received on said telephone line, said high pass filter further filtering any voice communications also received on said telephone line, wherein said high pass filter comprises a first resistor in series with an input capacitance, wherein said first resistor has a resistance substantially more than the internal resistance of said input capacitance;
an amplifier amplifying the output of said high pass filter; and
a low pass filter attenuating the signal components corresponding to said home networking to a level less than a desired noise floor.

14 (Original). The filter of claim 13, wherein said high pass filter further attenuates high frequency components including said signal components corresponding to said home networking, wherein the attenuations of said high frequency components enables said amplifier to be implemented with a higher gain.

15 (Original). The filter of claim 14, wherein said DSL comprises Asymmetric DSL (ADSL), and said home networking is performed according to home phone networking alliance (HPNA) standard, wherein said desired noise floor equals -150 dBm/Hz.

16 (Previously Amended). The filter of claim 14, wherein said first resistor causes said attenuations of said high frequency components.

17 (Original). The filter of claim 16, further comprising a second resistor in series with another stage contained in said high pass filter.

18 (Original). The filter of claim 13, wherein said high pass filter, said amplifier and said low pass filter are implemented in a monolithic integrated circuit.

19. Canceled.